FIG. 1A

10

20

20

20

FIG. 1B

10

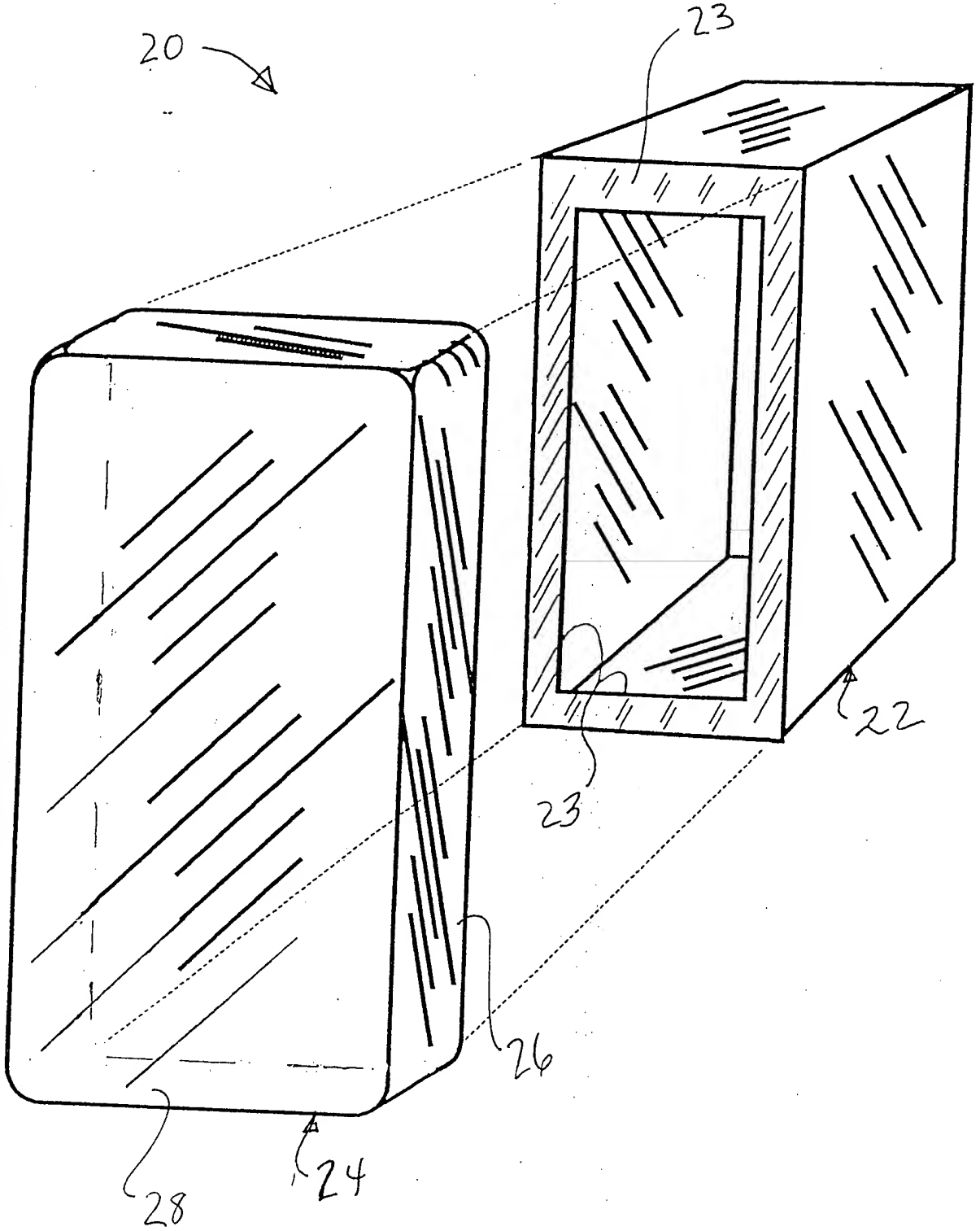
20

20

20

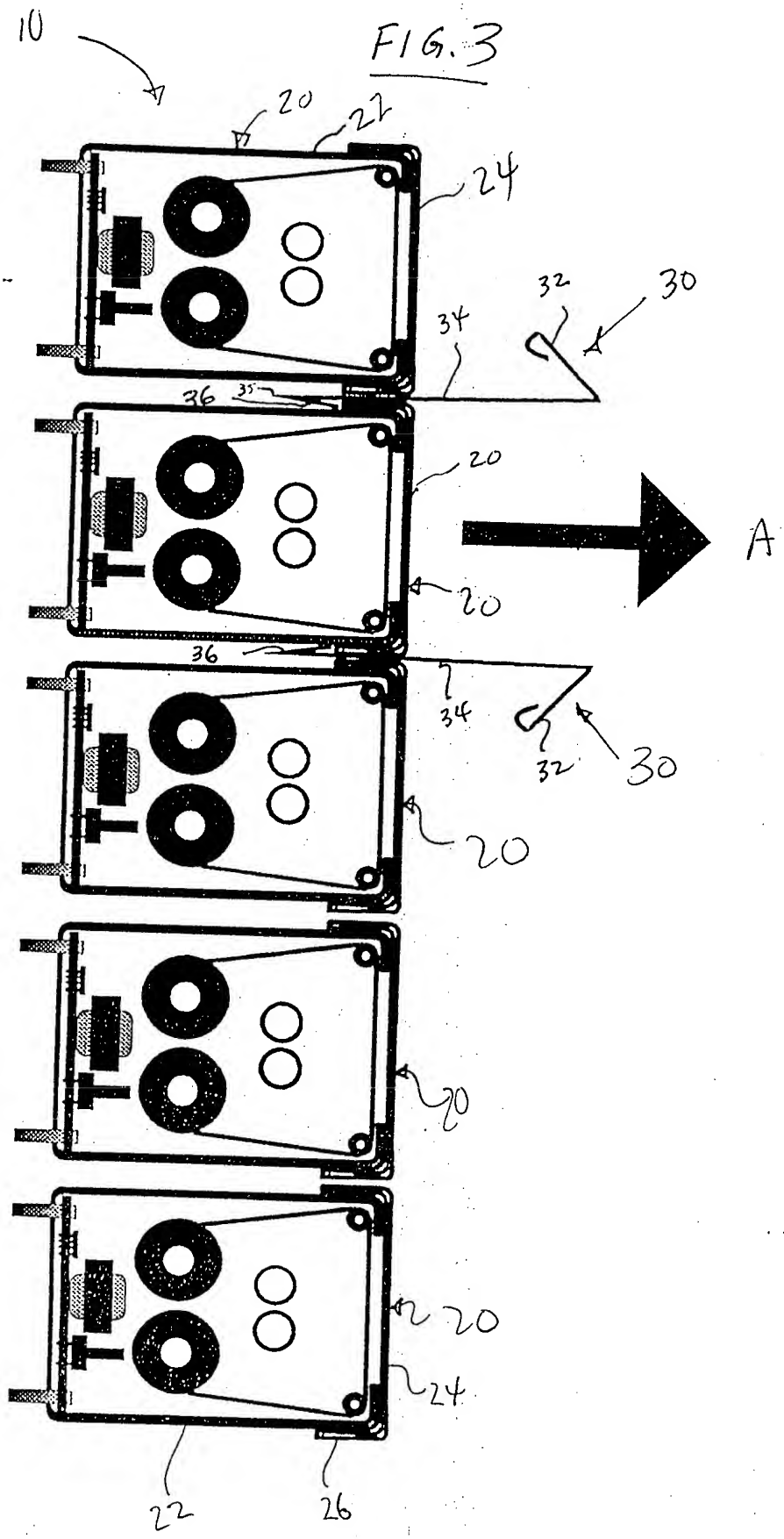
SUBSTITUTE SHEET (RULE 26)

FIG. 2



Y0920020055US0

FIG. 3



Version: 2.0.0.0

FIG. 4

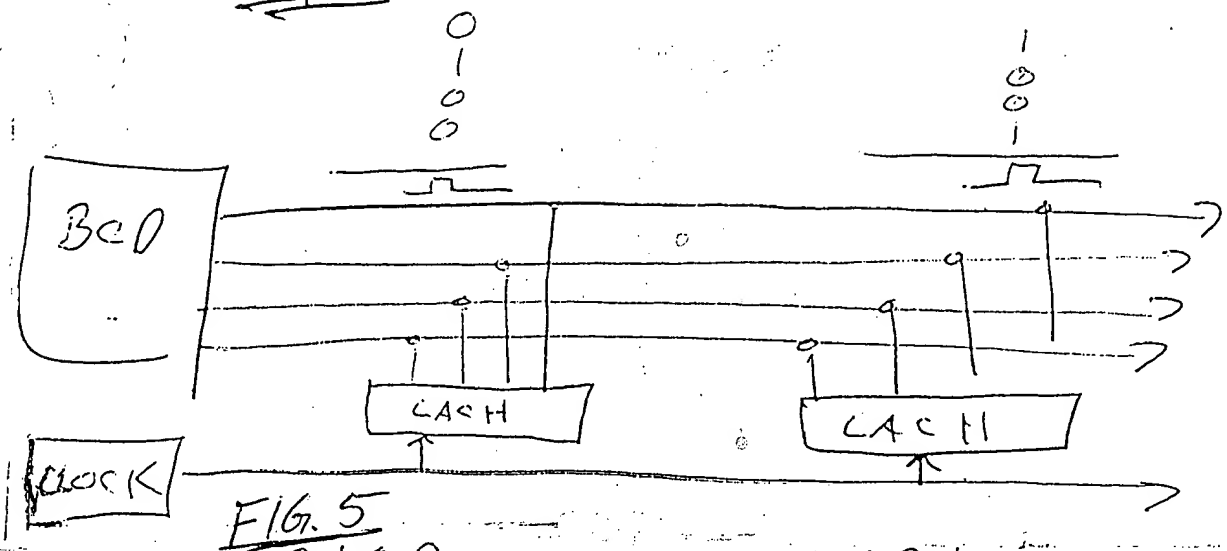


FIG. 5

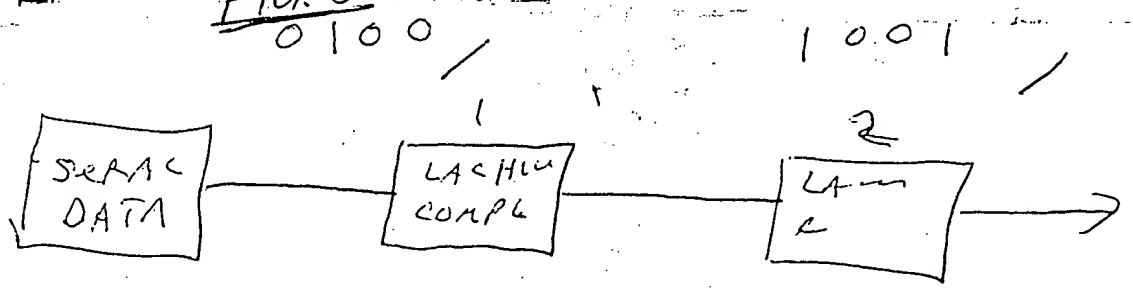
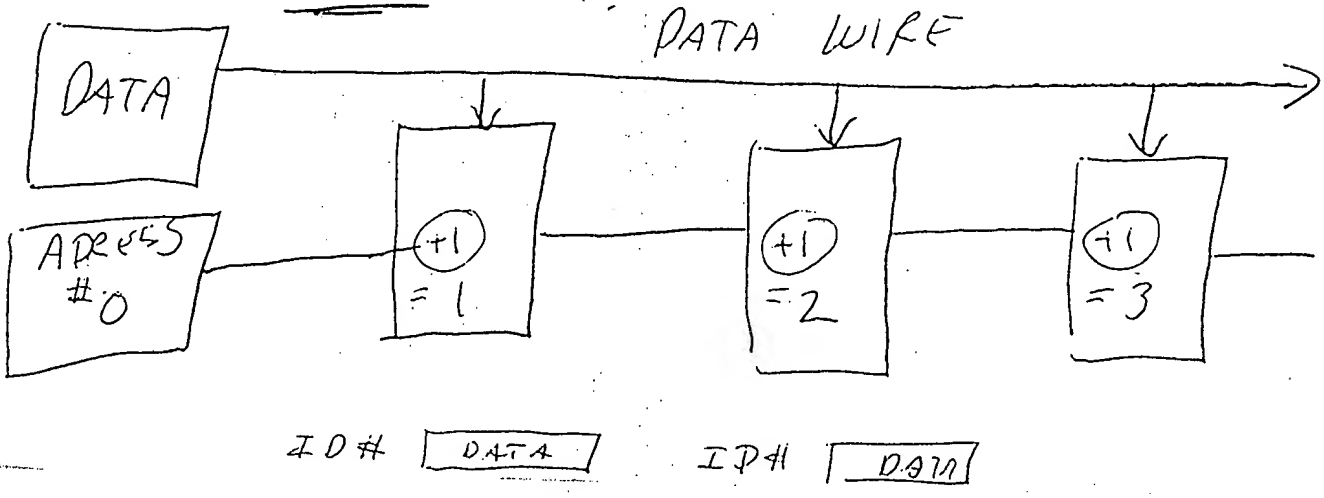
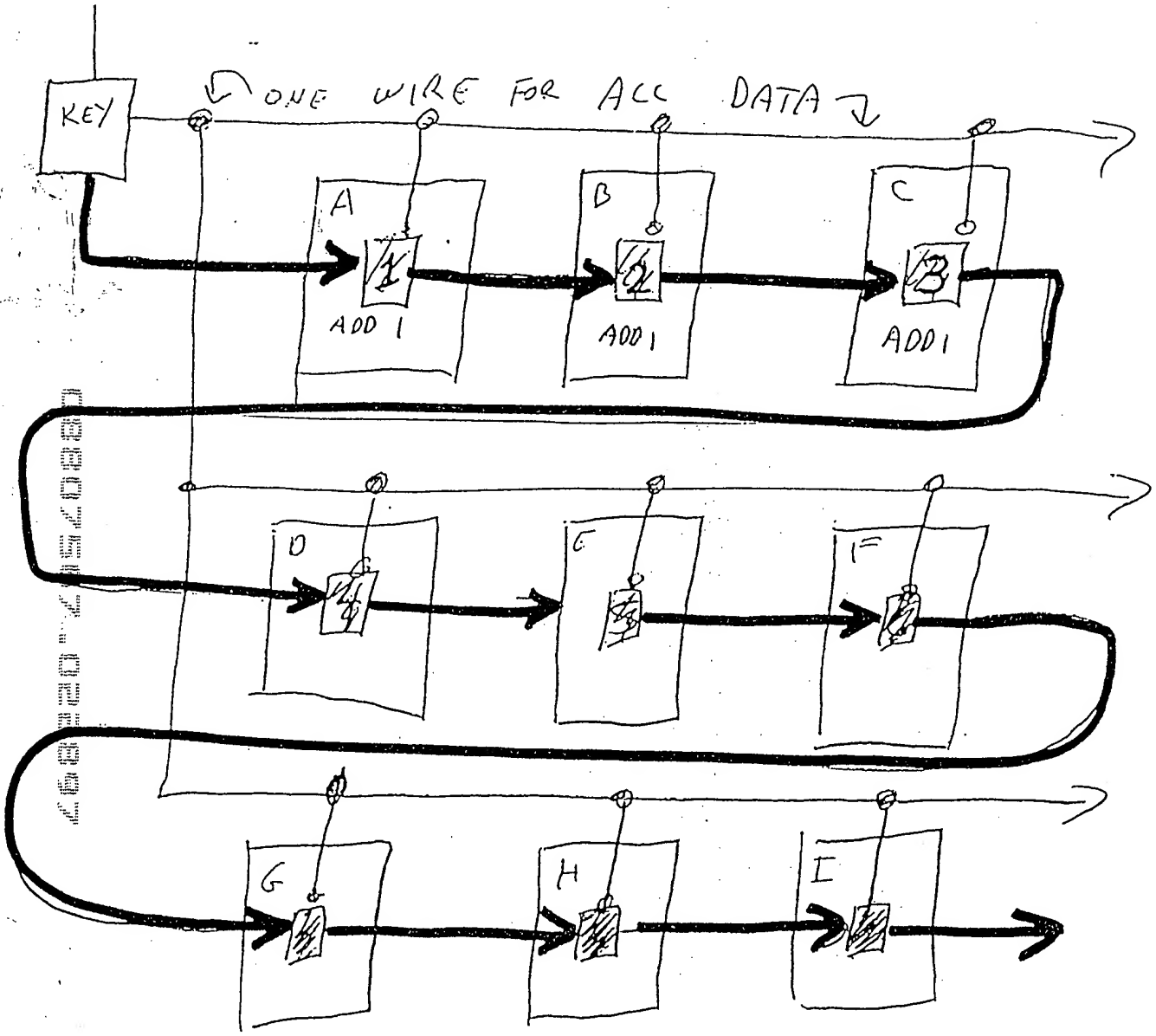


FIG. 6



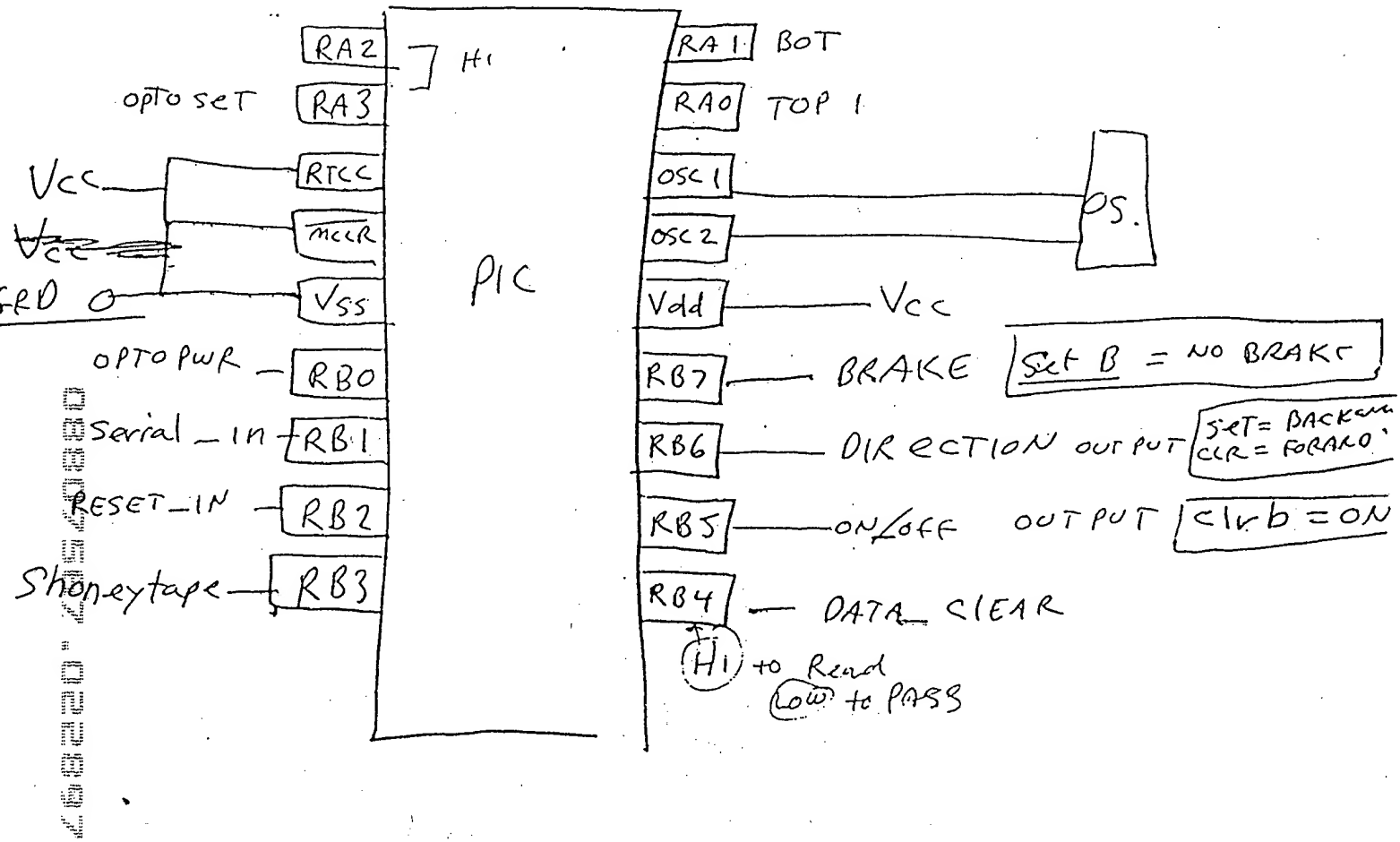
4/19

FIG. 7



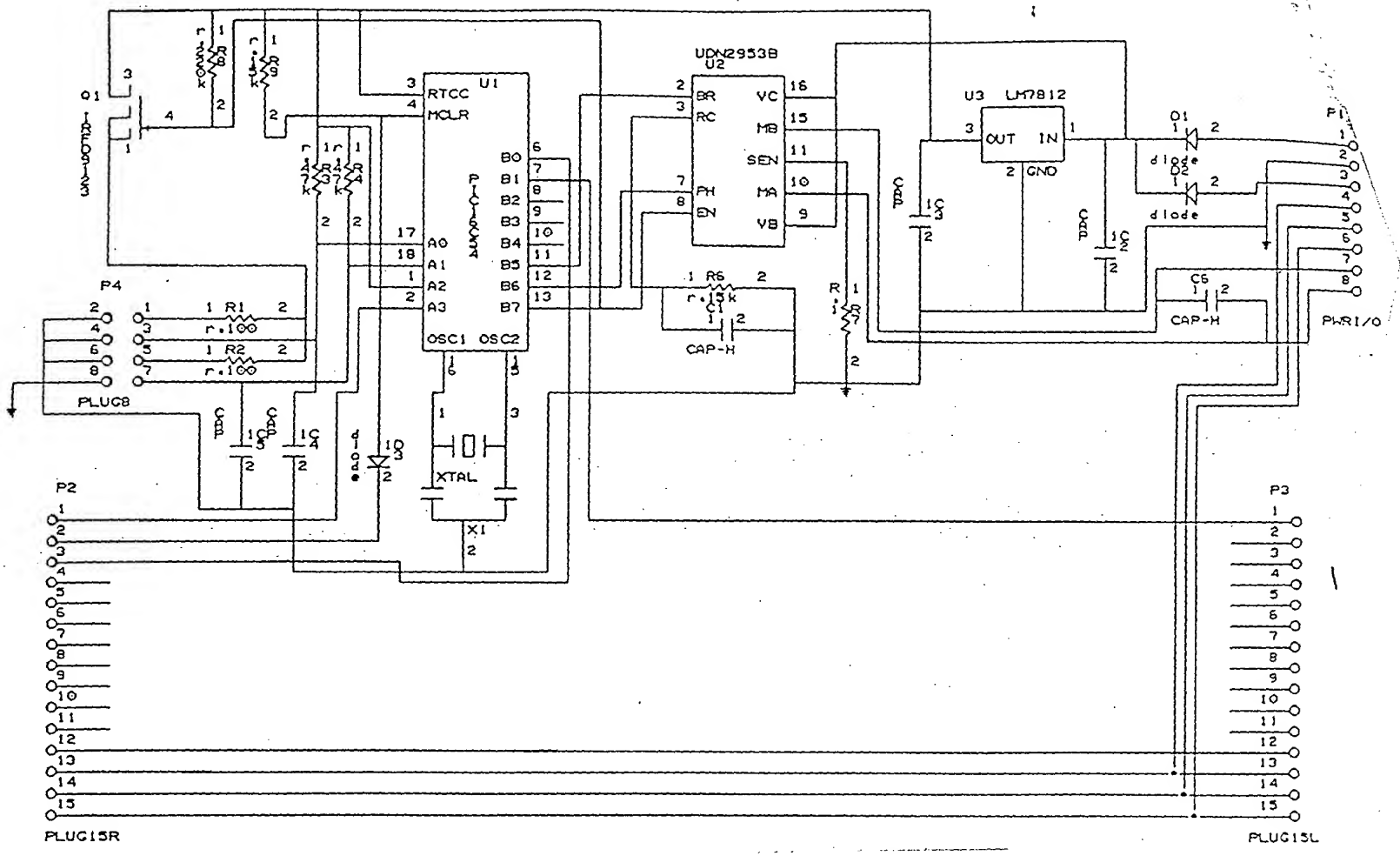
5/19

FIG. 8.


RA2
RA3
RTCC
MCLR
Vss
RB0
RB1
RB2
RB3
RA1
RA0
OSC1
OSC2
Vdd
RB7
RB6
RB5
RB4
PIC
Hi
opto set
Vcc
Vcc
GRD
OPTO PWR
Serial_IN
RESET_IN
Shoneytape
BOT
TOP 1
OS.
Vcc
BRAKE
Set B = NO BRAKE
DIRECTION OUT PUT
Set= BACKWARD
CLR= FORARD
ON/OFF OUT PUT
clrb = ON
DATA CLEAR
Hi to Read
Low to PASS

6/19

FIG. 9



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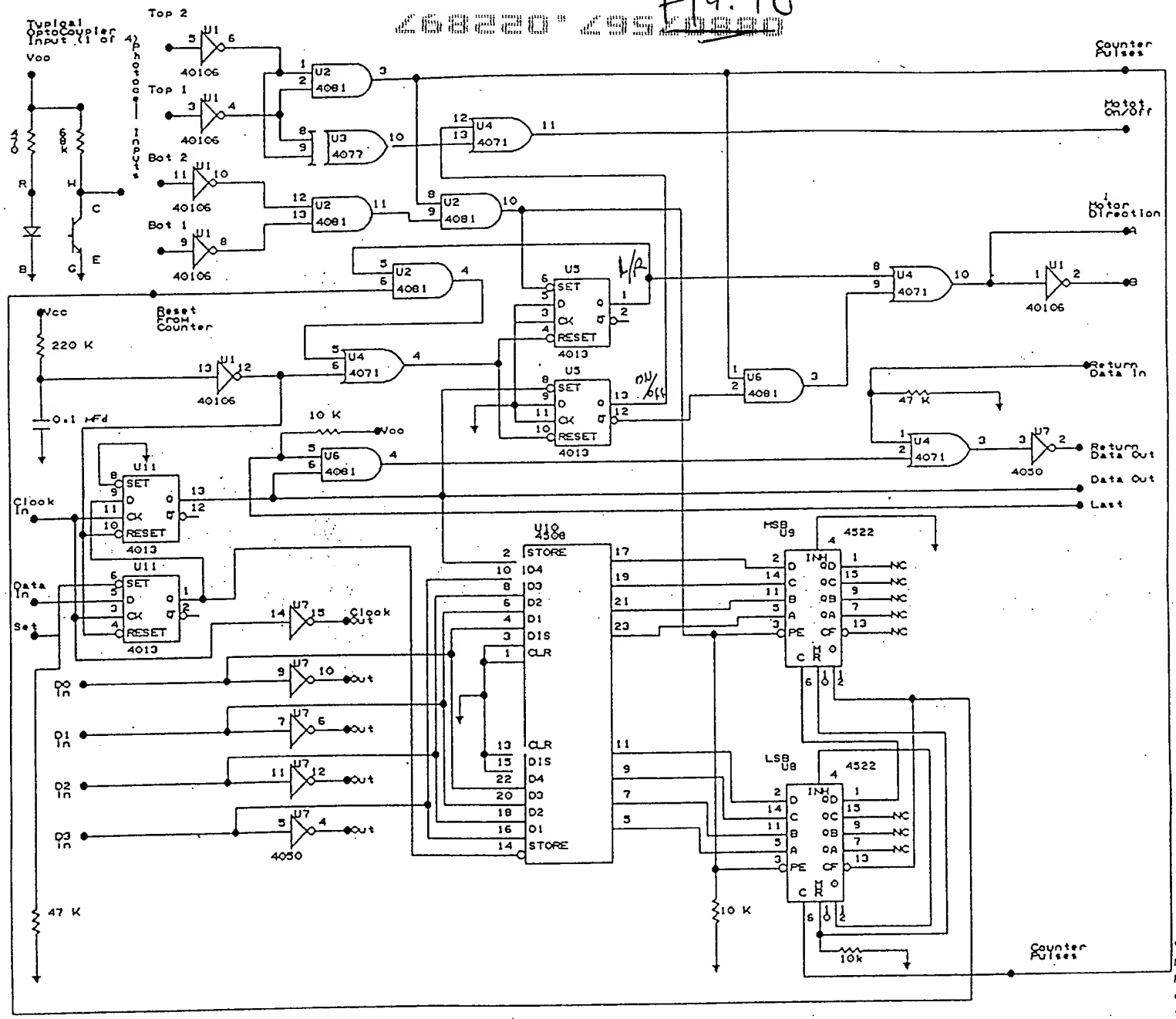
6/7

6/19

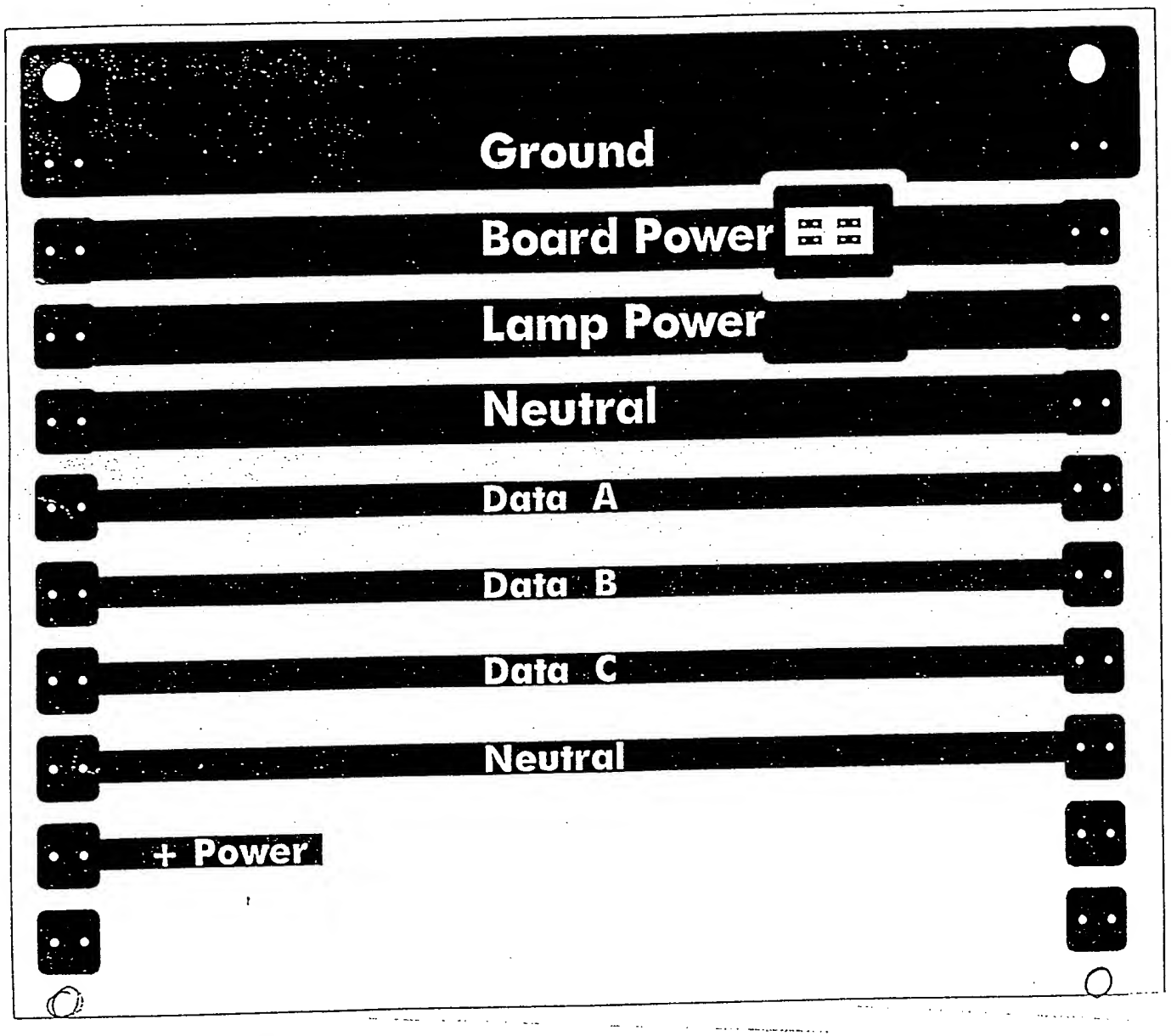
FIG. 10



V. Kurdyla
Nov. 6, 1992
Revised for artwork changes made to 8/26/92 schematic

2688220 2952080

FIG. 11



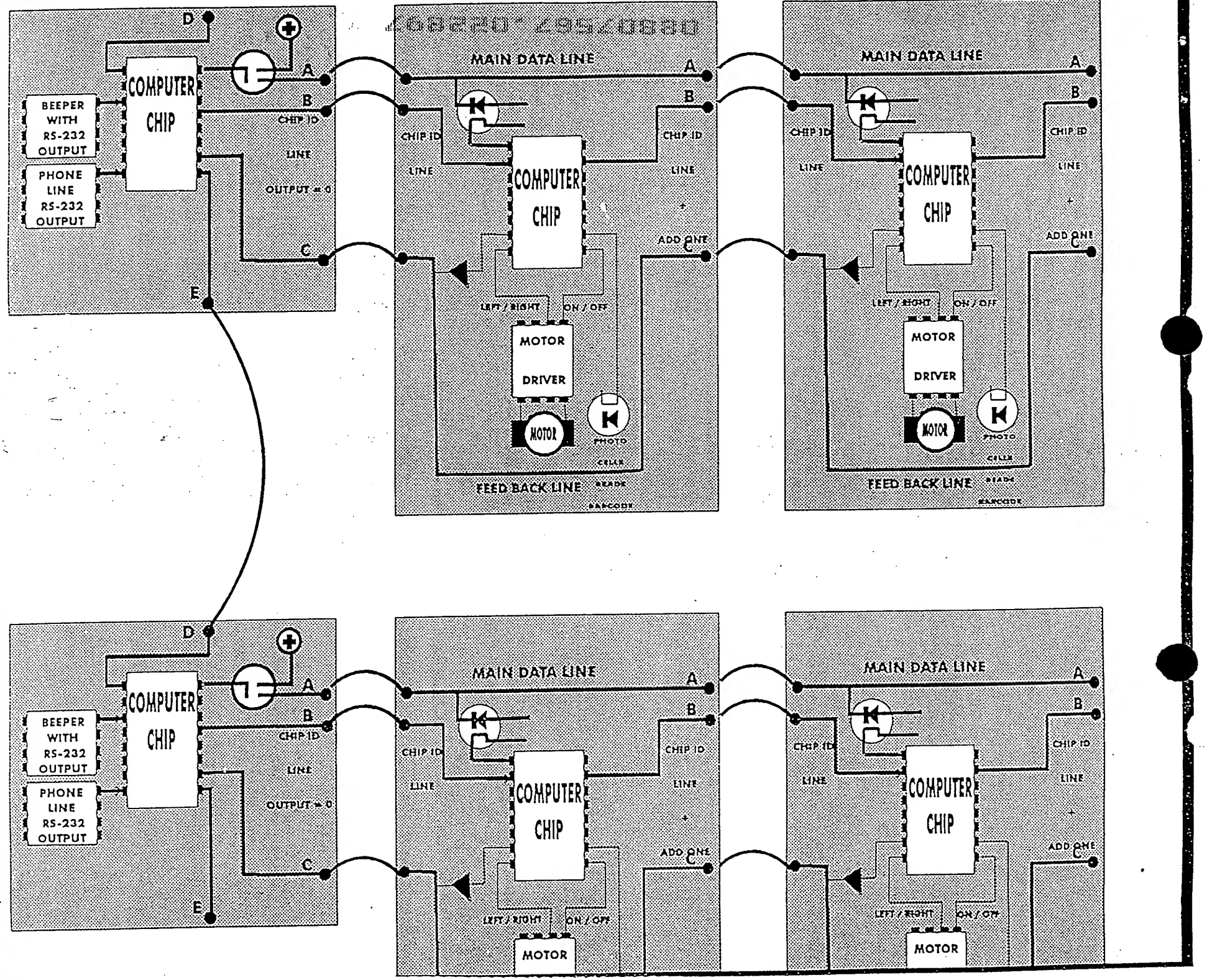
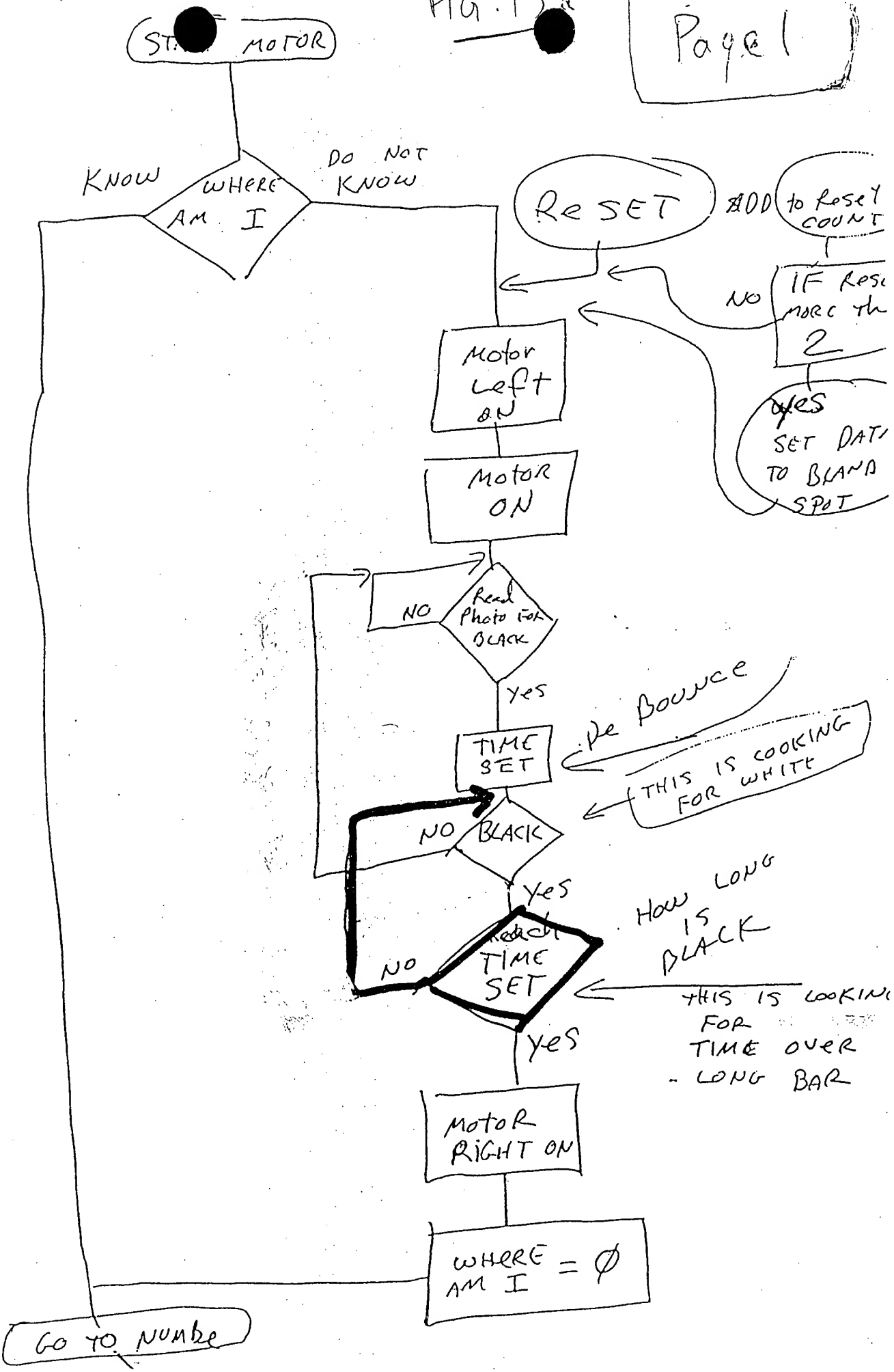

D
A
B
C
E
COMPUTER CHIP
BEEPER WITH RS-232 OUTPUT
PHONE LINE RS-232 OUTPUT
CHIP ID LINE
OUTPUT = 0
MAIN DATA LINE
CHIP ID LINE
+
ADD ONE
LEFT / RIGHT
ON / OFF
MOTOR DRIVER
MOTOR
PHOTO CELLS
FEED BACK LINE
READS BARCODE

FIG. 13

Page 1



11/19

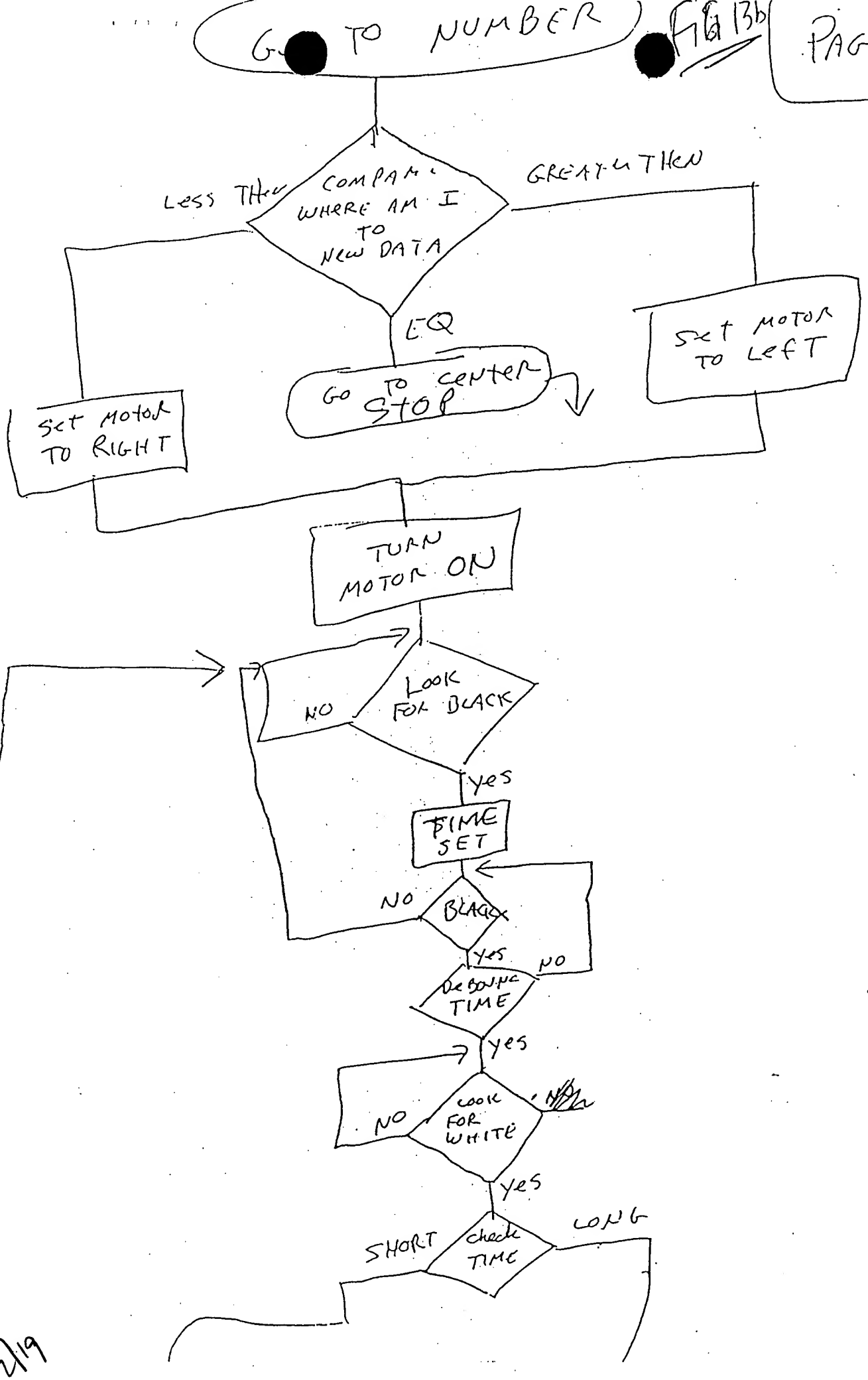
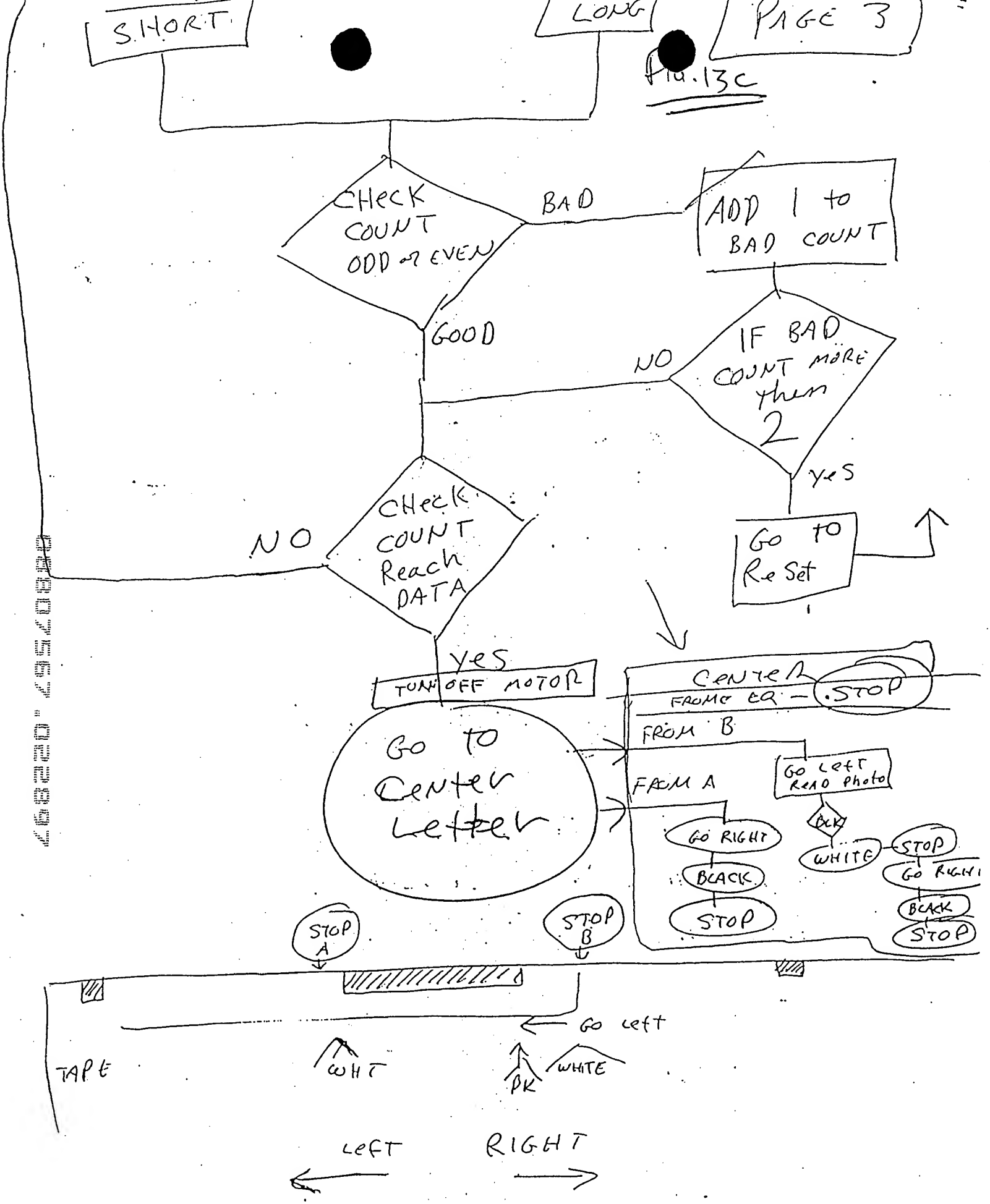

GO TO NUMBER
COMPARE WHERE AM I TO NEW DATA
LESS THEN
GREATER THEN
EQ
GO TO CENTER STOP
SET MOTOR TO RIGHT
SET MOTOR TO LEFT
TURN MOTOR ON
LOOK FOR BLACK
NO
yes
TIME SET
BLACK
NO
yes
NO
DEBOUNCE TIME
yes
LOOK FOR WHITE
NO
yes
check TIME
SHORT
LONG

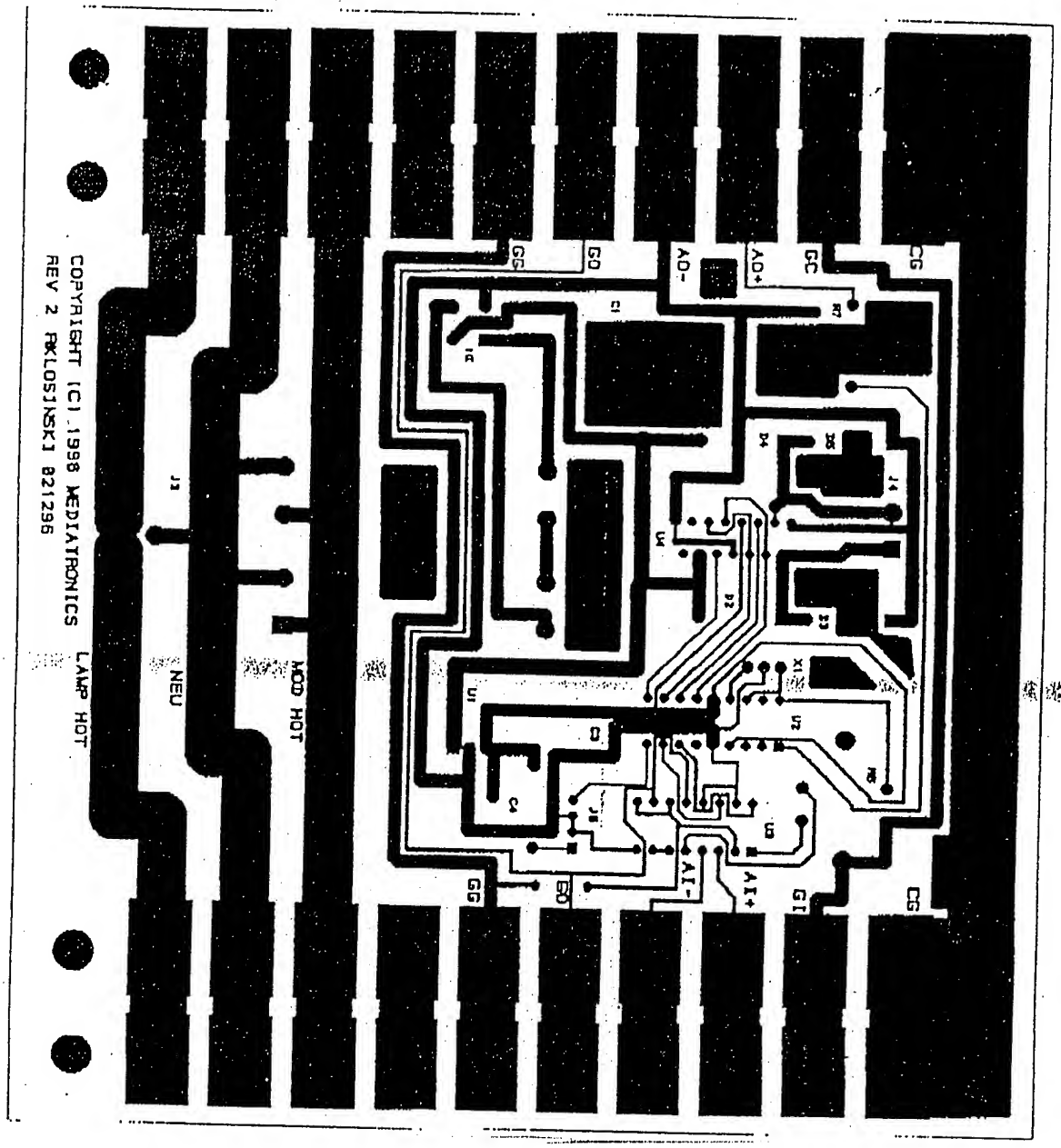
Fig 13b

12/9


SHORT
LONG
PAGE 3
Fig. 13c
CHECK COUNT ODD or EVEN
BAD
ADD 1 to BAD COUNT
GOOD
NO
IF BAD COUNT MORE THEN 2
YES
Go TO Re Set
NO
CHECK COUNT Reach DATA
YES
TURN OFF MOTOR
Go TO Center Letter
CENTER
FROM EQ — STOP
FROM B
FROM A
Go Left Read Photo
BLK
WHITE
STOP
Go RIGHT
BLACK
STOP
Go RIGHT
BLACK
STOP
STOP A
STOP B
Go left
TAPE
WHT
PK
WHITE
LEFT
RIGHT

13/19

FIG. 14


COPYRIGHT (C) 1998 MEDIATRONICS
REV 2 PKLOSINSKI 821296
NEU
MOOD HOT
LAMP HOT
AO-
AO+
AI-
AI+

14/19

FIG. 5

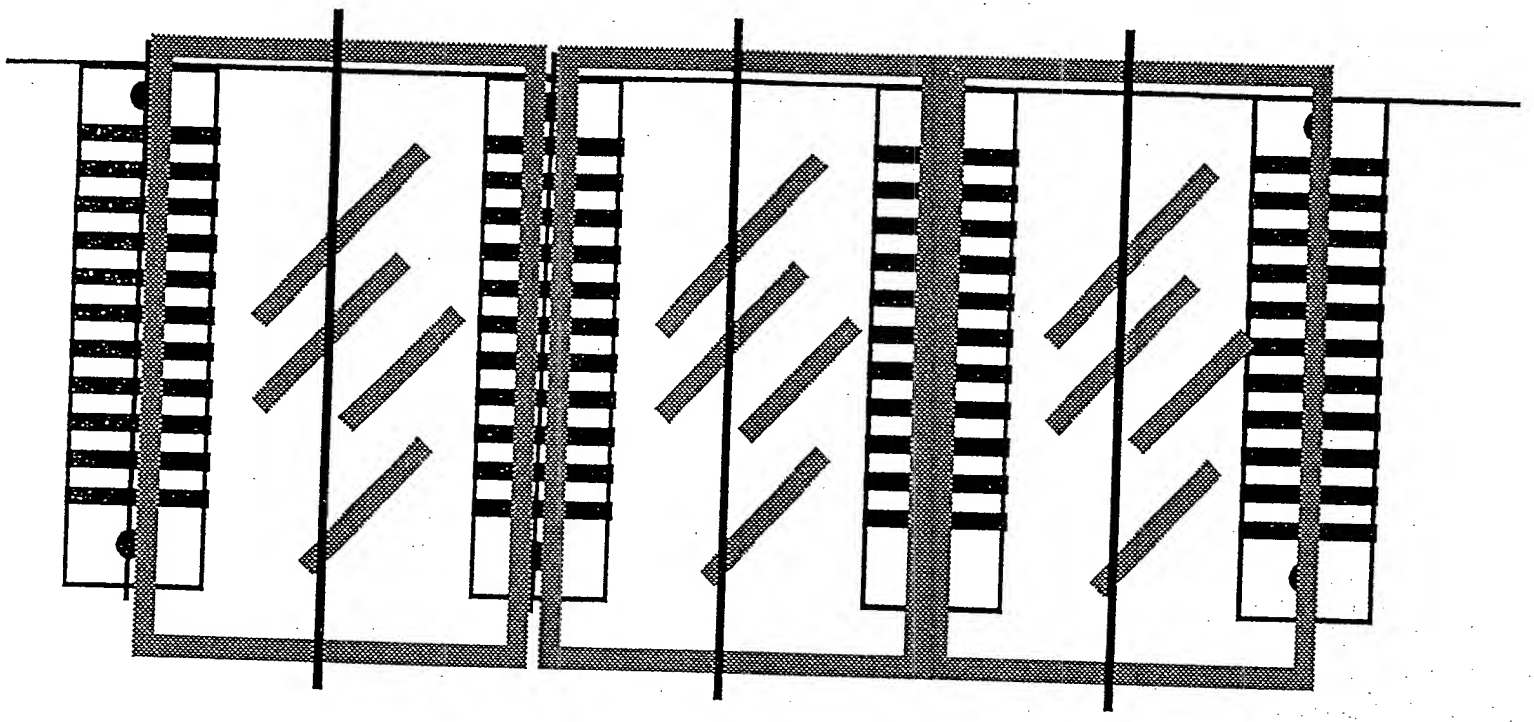
WO 2005/050850 PCT/US2004/039197

FIG. 16a

FIG. 16b

FIG. 16c

FIG. 17



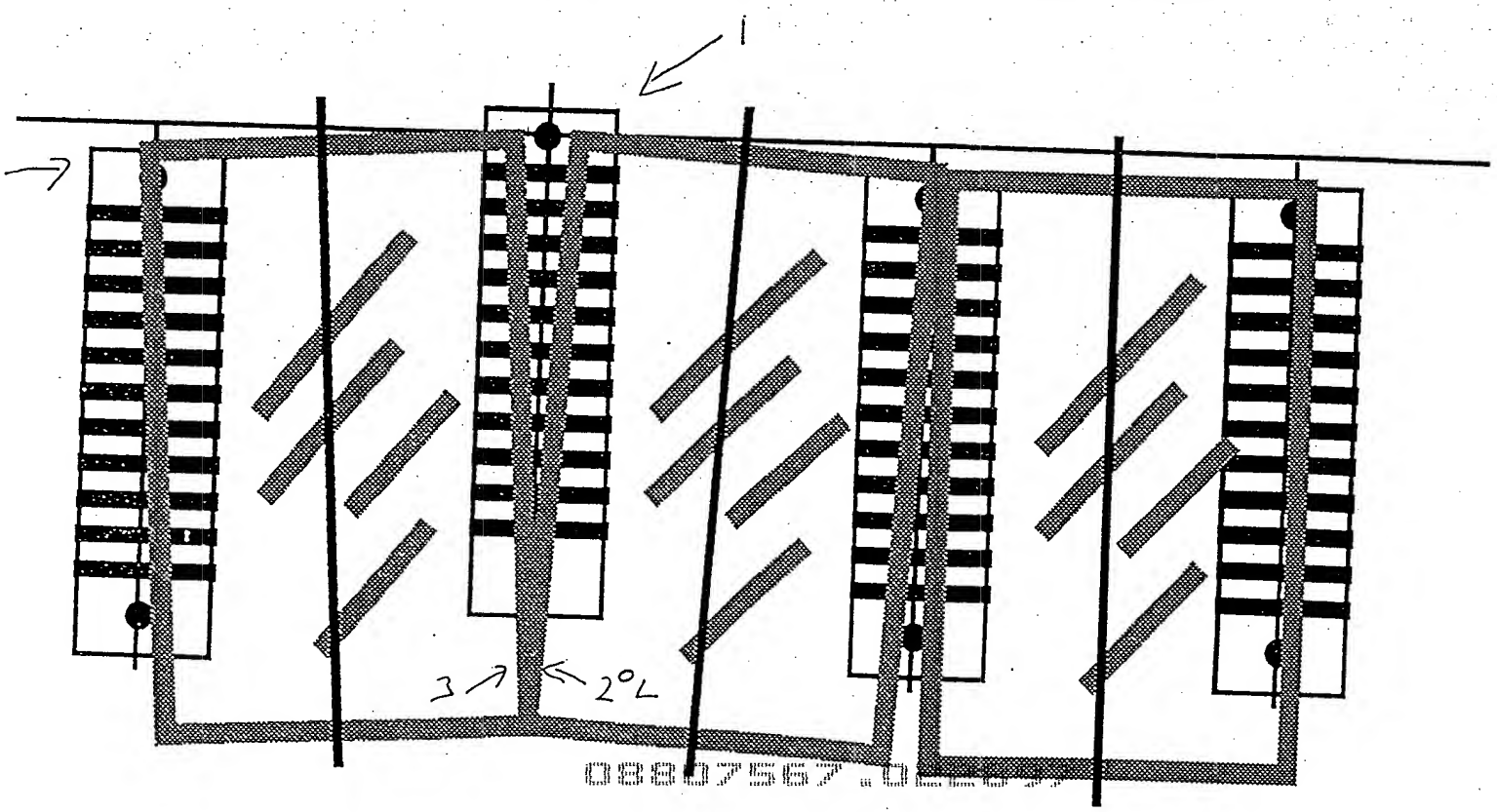


FIG. 18

FIG. 19

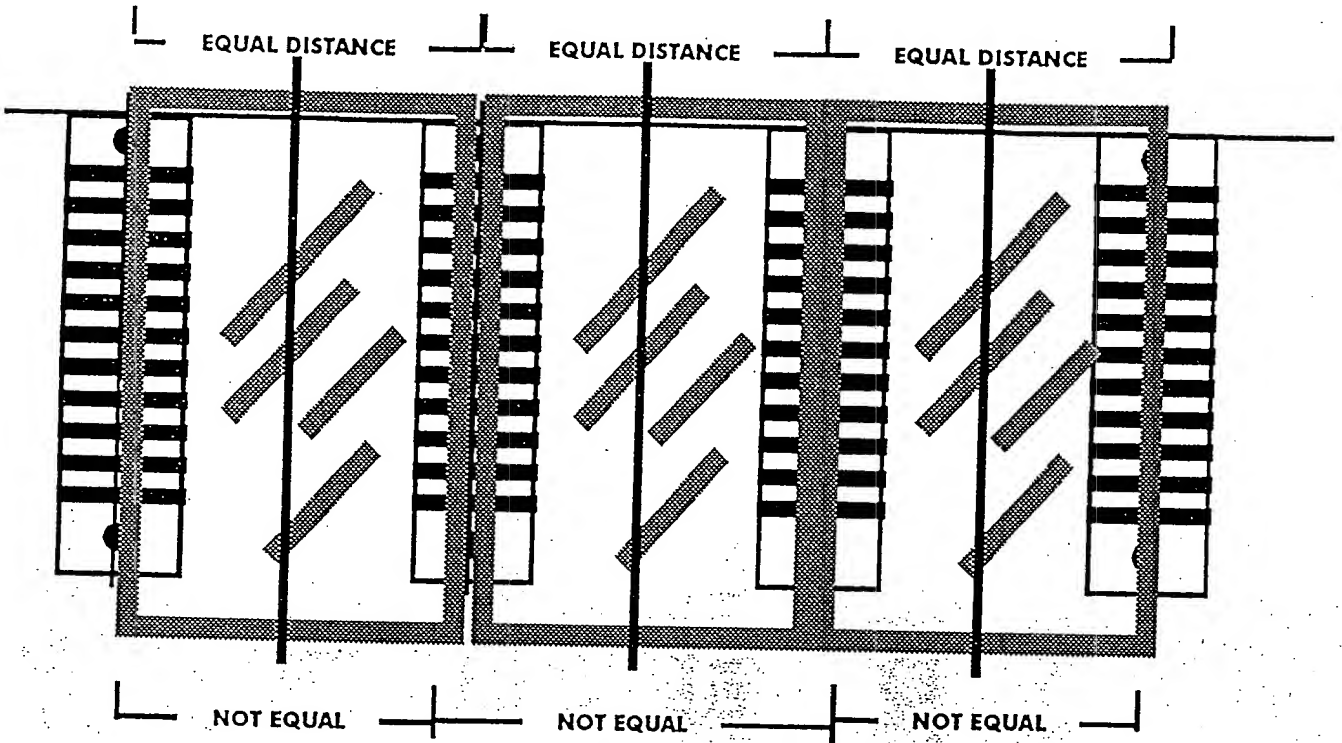
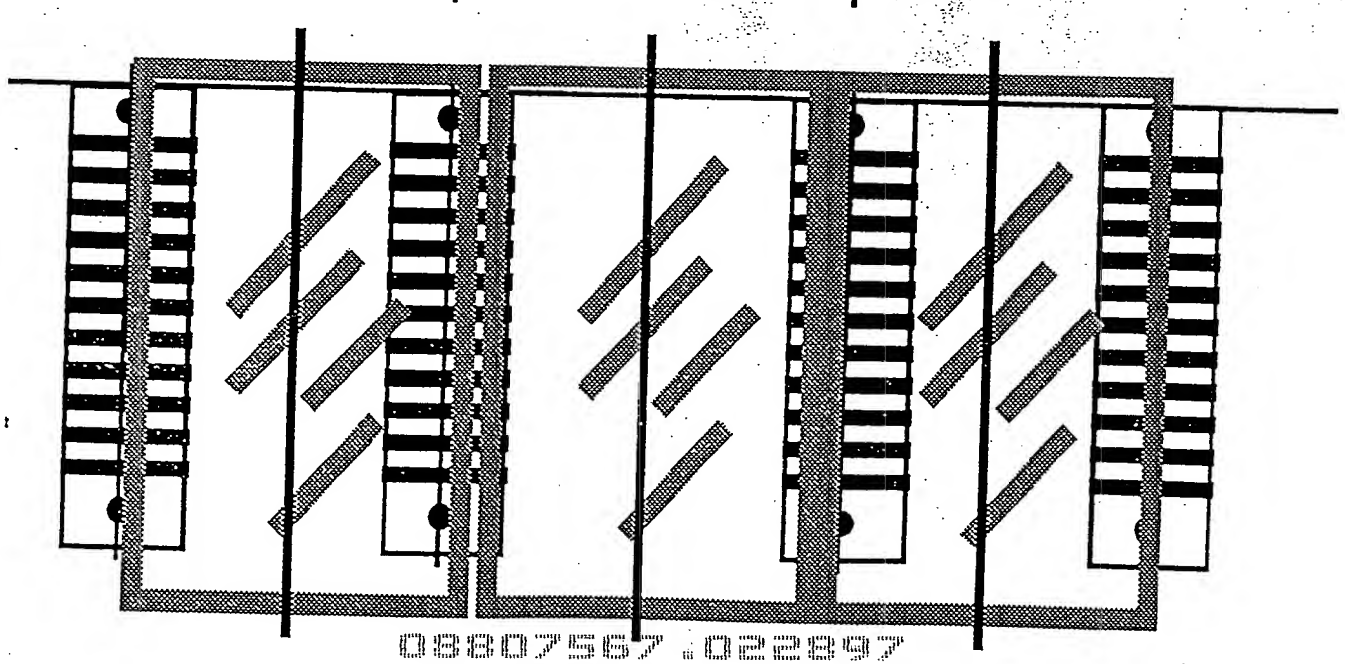


FIG. 20



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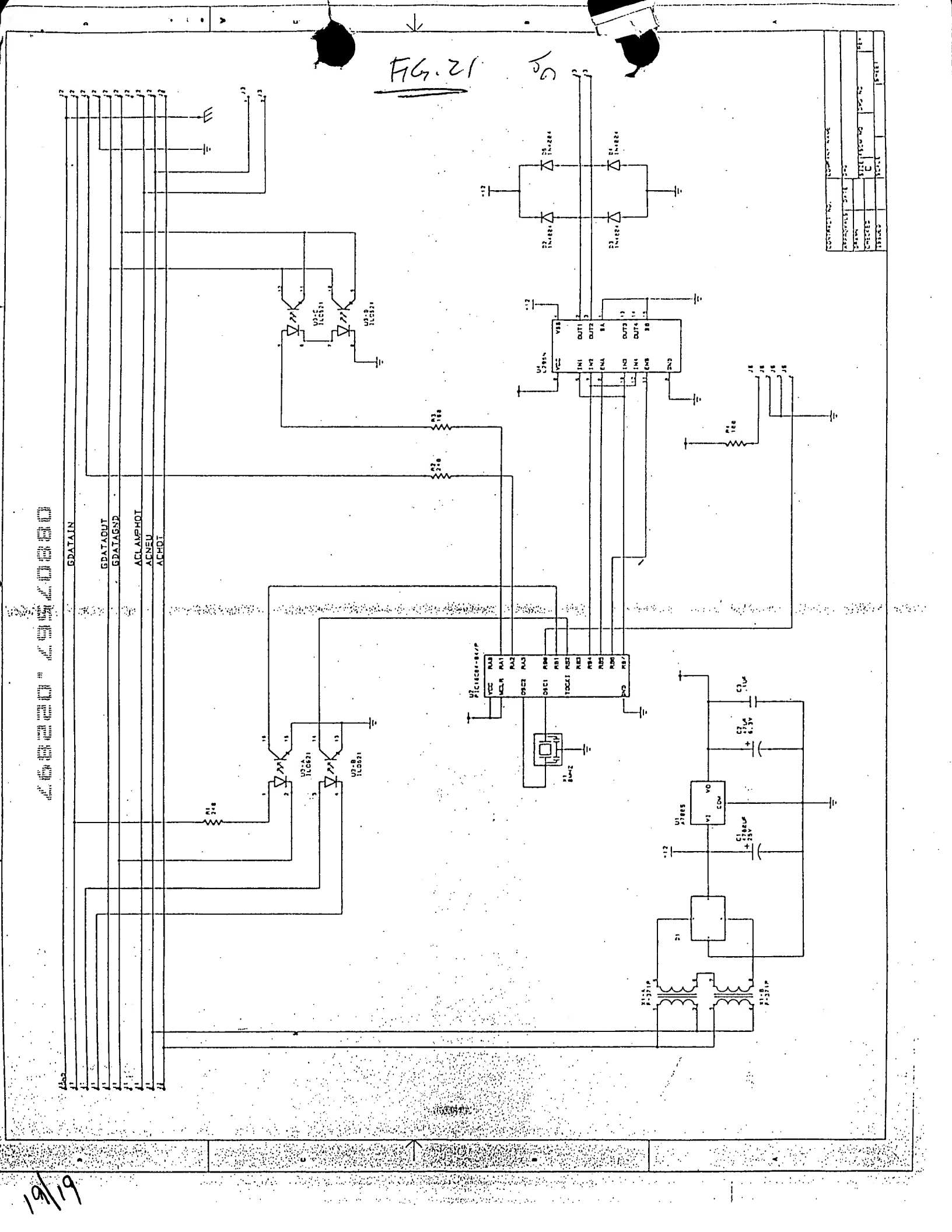
6/81

FIG. 21



19/19

FIG. 22

ONTROL PCB

REF DES	DESCRIPTION	QTY	MFGR.	PN	NOTES
R1-2	RES, 240, 1/4W, 5%	2	ANY		
R3	RES, 160, 1/4W, 5%	1	ANY		
R4	RES, 100, 1/4W, 5%	1	ANY		
C1	CAP, 4700UF, 25V, ELEC	1	PANISONIC	ECE-B1EU472	
C2	CAP,100UF, 6.3V, ELEC	1	PANISONIC	ECE-A0JU101	
C3	CAP,.1UF, 50V, MONO	1	ANY		
U1	IC, REG, 5V	1	ANY	A7805	
U2	IC, PIC16C84-04/P	1	MICROCHIP	PIC16C84-04/P	
U3	OPTO, ISO, 4 CHANNEL	1	SEIMENS	ILQ621	
U4	IC, H-DRIVER, 2 CHANNEL	1	SGS	L298N	
D1	REC, BRIDGE	1	GI	W005G	
D2-5	DIODE, 1N4004	4	ANY	1N004	
J1-2	LUGS, SPADE	20	KEYSTONE	1281	
J3-4	JACK, POWER	2	AMP	350759-4	
J5	HEADER, 4 PIN	1	CFX		
T1	XFORMER	1	MAGNETEK	FS12-1600	
	HEATSINK, TO-220	1		57404B	

MISC

REF DES	DESCRIPTION	QTY	MFGR.	PN	NOTES
CM1,2	CAP, .1UF, 50V, MONO	2	ANY		FOR MOTOR
P1-2	PLUG, POWER	2	AMP	1-480698-0	FOR MOTOR AND LAMP
OPTO1	OPTO, REFECTIVE	1	OMRON	EE-SB5	
	PINS,POWER	4	AMP	350706-1	